

# Notice of Allowability

Application No.

09/147,955

Examiner

Medina A Ibrahim

Applicant(s)

MIZUTANI ET AL.

Art Unit

1638

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment of 07/06/04.
2. ☒ The allowed claim(s) is/are 1, 6-7, 9-11, 20-21, and 43-45, renumbered as 1-11, respectively.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 09/28/04.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Susan Dadio on 09/28/04.

The application has been amended as follows:

In The Title:

The title has been replaced with the following:

-----ISOLATED DNA SEQUENCES ENCODING A FLAVONOID 5-  
GLUCOSYLTRANSFERASE AND METHODS OF USE THEREOF-----

In The Abstract:

The abstract on page 42 has been replaced with the following:

-----The present invention provides DNA sequences isolated from Perilla, Torenia, Verbena and Petunia, encoding a protein having activity that transfers a glycoside to the 5 position of a flavonoid (5GT), a host cell and plants transformed with said DNA sequences and a process for producing a protein using said DNA sequences-----.

In The Claims:

Claim 1 (Currently amended): An isolated DNA encoding [coding for] a protein having an amino acid sequence that has at least 50% [a] sequence identity [of 50% or

Art Unit: 1638

more] with the [an] amino acid sequence as set forth [shown] in any one of SEQ ID NO: 2, 4, 6, 8 or 12, wherein the protein has flavonoid-5-glucosyltransferase (5GT) [and] activity [that transfers a glycoside to the 5 position of a flavonoid].

Claim 5 has been cancelled.

Claim 6 (Currently amended): A vector containing the isolated DNA according to [as set forth in] claim 1.

Claim 7 (Currently amended): A host cell transformed with the vector according to [as set forth in] claim 6.

Claim 9 (Currently amended): A process for producing a protein comprising culturing the host cell according to [as set forth in] claim 7, and recovering a protein having flavonoid-5-glucosyltransferase activity [that transfers a glycoside to the 5 position of a flavonoid] from said host cell.

Claim 10 (Currently amended): A plant transformed with [into which is introduced] the isolated DNA according to [as set forth in] claim 1 [, or its progeny or tissue that conserve said DNA which was introduced].

Art Unit: 1638

Claim 11 (Currently amended): A cut flower of the plant according to [as set forth in] claim 10, wherein the cut flower comprises [or its progeny that conserve] said isolated DNA [which was introduced].

Claim 20 (Currently amended): An isolated nucleic acid molecule comprising [a] the nucleotide sequence as set forth in any one of SEQ ID NO: 1, 3, 5, 7 or 11 [, or having at least 50% a sequence identity thereto, and] encoding a plant flavanoid-5-glucosyltransferase (5GT).

Claim 21 (Currently amended): The isolated nucleic acid molecule according to claim 20, wherein the nucleotide sequence is from a plant [is] selected from the group consisting of perilla [Perilla], torenia, verbena and petunia.

Claims 40-41 have been cancelled.

Claim 43 (New): A progeny of the plant according to claim 10, wherein the progeny comprises the isolated DNA.

Claim 44 (New): A tissue of the plant according to claim 10, wherein the tissue comprises the isolated DNA.

Claim 43 (New): A progeny of the cut flower according to claim 11, wherein the progeny comprises the isolated DNA.

Art Unit: 1638

**Contact Information**

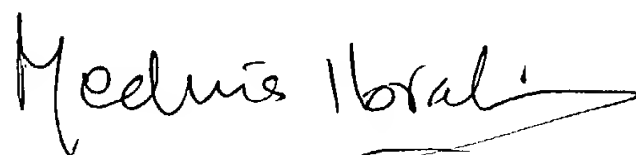
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina A. Ibrahim whose telephone number is (571) 272-0797. The Examiner can normally be reached Monday -Thursday from 8:00AM to 5:30PM and every other Friday from 9:00AM to 5:00 PM. Before and after final responses should be directed to fax nos. (703) 872-9306 and (703) 872-9307, respectively.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. Amy Nelson, can be reached at (571) 272-0804.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Mai  
09/28/04



**MEDINA A. IBRAHIM  
PATENT EXAMINER**